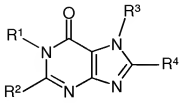
This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A compound of the formula (I):



(I),

wherein

R^1 denotes a hydrogen atom,

a C_{1-8}-alkyl group,

a C_{3-8}-alkenyl group,

a C_{3-4}-alkenyl group which is substituted by a C_{1-2}-alkyloxy-carbonyl, aminocarbonyl, C_{1-3}-alkylamino-carbonyl, di-(C_{1-3}-alkyl)-amino-carbonyl, pyrrolidin-1-ylcarbonyl, piperidin-1-ylcarbonyl or morpholin-4-ylcarbonyl group,

a C_{3-8}-alkynyl group,

a C_{1-6}-alkyl group substituted by a group R_a, where

R_a denotes a C_{3-7}-cycloalkyl, heteroaryl, cyano, carboxy, C_{1-3}-alkyloxy-carbonyl, aminocarbonyl, C_{1-3}-alkylamino-carbonyl, di-(C_{1-3}-alkyl)-amino-carbonyl, pyrrolidin-1-

ylcarbonyl, piperidin-1-ylcarbonyl, morpholin-4-ylcarbonyl, piperazin-1-ylcarbonyl, 4-methylpiperazin-1-ylcarbonyl or 4-ethylpiperazin-1-ylcarbonyl group,

a C_{1-6}-alkyl group substituted by a phenyl group, where the phenyl ring is substituted by the groups R^{10} to R^{14} and

R^{10} denotes a hydrogen atom,

a fluorine, chlorine, bromine or iodine atom,

a C_{1-4}-alkyl, hydroxy or C_{1-4}-alkyloxy group,

a nitro, amino, C_{1-3}-alkylamino, di-(C_{1-3}-alkyl)-amino, cyan-C_{1-3}-alkylamino, N-(cyan-C_{1-3}-alkyl)-N-(C_{1-3}-alkyl)-amino, C_{1-3}-alkyloxy-carbonyl-C_{1-3}-alkylamino, pyrrolidin-1-yl, piperidin-1-yl, morpholin-4-yl, piperazin-1-yl or 4-(C_{1-3}-alkyl)-piperazin-1-yl group,

a formylamino, C_{1-3}-alkyl-carbonylamino, C_{3-6}-cycloalkyl-carbonylamino, C_{3-6}-cycloalkyl-C_{1-3}-alkyl-carbonylamino, arylcarbonylamino, aryl-C_{1-3}-alkyl-carbonyl-amino, C_{1-3}-alkyloxy-carbonylamino, aminocarbonylamino, C_{1-3}-alkyl-aminocarbonyl-amino, di-(C_{1-3}-alkyl)-aminocarbonylamino, pyrrolidin-1-yl-carbonylamino, piperidin-1-yl-carbonylamino, morpholin-4-yl-carbonylamino, piperazin-1-yl-carbonylamino or 4-(C_{1-3}-alkyl)-piperazin-1-yl-carbonylamino, C_{1-3}-alkyl-sulphonylamino, bis-(C_{1-3}-alkylsulphonyl)-amino, aminosulphonylamino, C_{1-3}-alkylamino-sulphonylamino, di-(C_{1-3}-alkyl)-amino-sulphonylamino, pyrrolidin-1-yl-sulphonylamino, piperidin-1-yl-sulphonylamino, morpholin-4-yl-sulphonylamino, piperazin-1-yl-sulphonylamino or 4-(C_{1-3}-alkyl)-piperazin-1-yl-sulphonylamino, (C_{1-3}-alkylamino)-thiocarbonylamino, (C_{1-3}-alkyloxy-carbonylamino)-carbonylamino, arylsulphonylamino or aryl-C_{1-3}-alkyl-sulphonylamino group,

an N-(C_{1-3}-alkyl)-formylamino, N-(C_{1-3}-alkyl)-N-(C_{1-3}-alkyl-carbonyl)-amino, N-(C_{1-3}-alkyl)-N-(C_{3-6}-cycloalkyl-carbonyl)-amino, N-(C_{1-3}-alkyl)-N-(C_{3-6}-cycloalkyl-C_{1-3}-alkyl-carbonyl)-amino, N-(C_{1-3}-alkyl)-N-(arylcarbonyl)-amino, N-(C_{1-3}-alkyl)-N-(aryl-C_{1-3}-alkyl-carbonyl)-amino, N-(C_{1-3}-alkyl)-N-(C_{1-3}-alkyloxy-carbonyl)-amino, N-(aminocarbonyl)-N-(C_{1-3}-alkyl)-amino, N-(C_{1-3}-alkyl-amino-carbonyl)-N-(C_{1-3}-alkyl)-amino, N-[di-(C_{1-3}-alkyl)aminocarbonyl]-N-(C_{1-3}-alkyl)-amino, N-(C_{1-3}-alkyl)-N-(C_{1-3}-alkyl-sulphonyl)-amino, N-(C_{1-3}-alkyl)-N-(arylsulphonyl)-amino or N-(C_{1-3}-alkyl)-N-(aryl-C_{1-3}-alkyl-sulphonyl)-amino group,

a 2-oxo-imidazolidin-1-yl, 2,4-dioxo-imidazolidin-1-yl, 2,5-dioxo-imidazolidin-1-yl or 2-oxo-hexahydropyrimidin-1-yl group wherein the nitrogen atom in the 3 position may be substituted in each case by a methyl or ethyl group,

a cyano, carboxy, C_{1-3}-alkyloxy-carbonyl, aminocarbonyl, C_{1-3}-alkyl-aminocarbonyl, di-(C_{1-3}-alkyl)-aminocarbonyl, pyrrolidin-1-yl-carbonyl, piperidin-1-yl-carbonyl, morpholin-4-yl-carbonyl, piperazin-1-yl-carbonyl or 4-(C_{1-3}-alkyl)-piperazin-1-yl-carbonyl group,

a C_{1-3}-alkyl-carbonyl or an arylcarbonyl group,

a carboxy-C_{1-3}-alkyl, C_{1-3}-alkyloxy-carbonyl-C_{1-3}-alkyl, cyano-C_{1-3}-alkyl, aminocarbonyl-C_{1-3}-alkyl, C_{1-3}-alkyl-aminocarbonyl-C_{1-3}-alkyl, di-(C_{1-3}-alkyl)-aminocarbonyl-C_{1-3}-alkyl, pyrrolidin-1-yl-carbonyl-C_{1-3}-alkyl, piperidin-1-yl-carbonyl-C_{1-3}-alkyl, morpholin-4-yl-carbonyl-C_{1-3}-alkyl, piperazin-1-yl-carbonyl-C_{1-3}-alkyl or 4-(C_{1-3}-alkyl)-piperazin-1-yl-carbonyl-C_{1-3}-alkyl group,

a carboxy-C_{1-3}-alkyloxy, C_{1-3}-alkyloxy-carbonyl-C_{1-3}-alkyloxy, cyano-C_{1-3}-alkyloxy, aminocarbonyl-C_{1-3}-alkyloxy, C_{1-3}-alkyl-aminocarbonyl-C_{1-3}-alkyloxy, di-(C_{1-3}-alkyl)-aminocarbonyl-C_{1-3}-alkyloxy, pyrrolidin-1-yl-carbonyl-C_{1-3}-alkyloxy, piperidin-1-yl-carbonyl-C_{1-3}-alkyloxy, morpholin-4-yl-carbonyl-C_{1-3}-alkyloxy, piperazin-1-yl-carbonyl-

C_{1-3}-alkyloxy or 4-(C_{1-3}-alkyl)-piperazin-1-yl-carbonyl-C_{1-3}-alkyloxy group,

a hydroxy-C_{1-3}-alkyl, C_{1-3}-alkyloxy-C_{1-3}-alkyl, amino-C_{1-3}-alkyl, C_{1-3}-alkylamino-C_{1-3}-alkyl, di-(C_{1-3}-alkyl)-amino-C_{1-3}-alkyl, pyrrolidin-1-yl-C_{1-3}-alkyl, piperidin-1-yl-C_{1-3}-alkyl, morpholin-4-yl-C_{1-3}-alkyl, piperazin-1-yl-C_{1-3}-alkyl, 4-(C_{1-3}-alkyl)-piperazin-1-yl-C_{1-3}-alkyl group,

a hydroxy-C_{1-3}-alkyloxy, C_{1-3}-alkyloxy-C_{1-3}-alkyloxy, C_{1-3}-alkylsulphanyl-C_{1-3}-alkyloxy, C_{1-3}-alkylsulphinyl-C_{1-3}-alkyloxy, C_{1-3}-alkylsulphonyl-C_{1-3}-alkyloxy, amino-C_{1-3}-alkyloxy, C_{1-3}-alkylamino-C_{1-3}-alkyloxy, di-(C_{1-3}-alkyl)-amino-C_{1-3}-alkyloxy, pyrrolidin-1-yl-C_{1-3}-alkyloxy, piperidin-1-yl-C_{1-3}-alkyloxy, morpholin-4-yl-C_{1-3}-alkyloxy, piperazin-1-yl-C_{1-3}-alkyloxy, 4-(C_{1-3}-alkyl)-piperazin-1-yl-C_{1-3}-alkyloxy group,

a mercapto, C_{1-3}-alkylsulphanyl, C_{1-3}-alkysulphinyl, C_{1-3}-alkylsulphonyl, C_{1-3}-alkylsulphonyloxy, arylsulphonyloxy, trifluoromethylsulphanyl, trifluoromethylsulphinyl or trifluoromethylsulphonyl group,

a sulpho, aminosulphonyl, C_{1-3}-alkyl-aminosulphonyl, di-(C_{1-3}-alkyl)-aminosulphonyl, pyrrolidin-1-yl-sulphonyl, piperidin-1-yl-sulphonyl, morpholin-4-yl-sulphonyl, piperazin-1-yl-sulphonyl or 4-(C_{1-3}-alkyl)-piperazin-1-yl-sulphonyl group,

a methyl or methoxy group substituted by 1 to 3 fluorine atoms,

an ethyl or ethyloxy group substituted by 1 to 5 fluorine atoms,

a C_{2-4}-alkenyl or C_{2-4}-alkynyl group,

a C_{3-4}-alkenyloxy or C_{3-4}-alkynyloxy group,

a C_{3-6}-cycloalkyl or C_{3-6}-cycloalkyloxy group,

a C_{3-6}-cycloalkyl-C_{1-3}-alkyl or C_{3-6}-cycloalkyl-C_{1-3}-alkyloxy group or

an aryl, aryloxy, aryl-C_{1-3}-alkyl or aryl-C_{1-3}-alkyloxy group,

R^{11} and R^{12}, which may be identical or different, in each case represent a hydrogen atom, a fluorine, chlorine, bromine or iodine atom, a C_{1-3}-alkyl, trifluoromethyl, hydroxy, C_{1-3}-alkyloxy or cyano group, or

R^{11} together with R^{12}, if they are bound to adjacent carbon atoms, also represent a methylenedioxy, difluoromethylenedioxy or a straight-chain C_{3-5}-alkylene group and

R^{13} and R^{14}, which may be identical or different, in each case represent a hydrogen atom, a fluorine, chlorine or bromine atom, a trifluoromethyl, C_{1-3}-alkyl or C_{1-3}-alkyloxy group,

a phenyl-C_{1-4}-alkyl group wherein the alkyl moiety is substituted by a cyano, carboxy, C_{1-3}-alkyloxy-carbonyl, aminocarbonyl, C_{1-3}-alkyl-aminocarbonyl, di-(C_{1-3}-alkyl)-aminocarbonyl, pyrrolidin-1-yl-carbonyl, piperidin-1-yl-carbonyl, morpholin-4-yl-carbonyl-group and the phenyl moiety is substituted by the groups R^{10} to R^{14}, while R^{10} to R^{14} are as hereinbefore defined,

a phenyl group substituted by the groups R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a phenyl-C_{2-3}-alkenyl group wherein the phenyl moiety is substituted by the groups R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a phenyl-$(CH_2)_m$-A-$(CH_2)_n$-group wherein the phenyl moiety is substituted by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined and A represents a carbonyl group, m represents the number 0, 1 or 2 and n represents the number 1, 2 or 3,

a phenylcarbonylmethyl group wherein the phenyl moiety is substituted by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined and the methyl moiety is substituted by a C_{1-3}-alkyl group,

a phenyl-$(CH_2)_m$-B-$(CH_2)_n$-group wherein the phenyl moiety is substituted by R^{10} to R^{14}, where R^{10} to R^{14}, m and n are as hereinbefore defined and

B denotes a methylene group which is substituted by a hydroxy, C_{1-3}-alkyloxy, amino, C_{1-3}-alkylamino, di-(C_{1-3}-alkyl)-amino, mercapto, C_{1-3}-alkylsulphanyl, C_{1-3}-alkylsulphinyl or C_{1-3}-alkylsulphonyl group and is optionally additionally substituted by a methyl or ethyl group,

a naphthyl-C_{1-3}-alkyl group wherein the naphthyl moiety is substituted by the groups R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a naphthyl-$(CH_2)_m$-A-$(CH_2)_n$-group wherein the naphthyl moiety is substituted by R^{10} to R^{14}, where R^{10} to R^{14}, A, m and n are as hereinbefore defined,

a naphthyl-$(CH_2)_m$-B-$(CH_2)_n$-group wherein the naphthyl moiety is substituted by R^{10} to R^{14}, where R^{10} to R^{14}, B, m and n are as hereinbefore defined,

a [1,4]naphthoquinon-2-yl, chromen-4-on-3-yl, 1-oxoindan-2-yl, 1,3-dioxoindan-2-yl or 2,3-dihydro-3-oxo-benzofuran-2-yl group,

a heteroaryl-$(CH_2)_m$-A-$(CH_2)_n$ group where A, m and n are as hereinbefore defined,

a heteroaryl-$(CH_2)_m$-B-$(CH_2)_n$ group where B, m and n are as hereinbefore defined,

a C_{1-6}-alkyl-A-$(CH_2)_n$ group where A and n are as hereinbefore defined,

a C_{3-7}-cycloalkyl-$(CH_2)_m$-A-$(CH_2)_n$ group where A, m and n are as hereinbefore defined,

a C_{3-7}-cycloalkyl-$(CH_2)_m$-B-$(CH_2)_n$ group where B, m and n are as hereinbefore defined,

an R^{21}-A-$(CH_2)_n$-group wherein R^{21} denotes a C_{1-3}-alkyloxycarbonyl, aminocarbonyl, C_{1-3}-alkylaminocarbonyl, di-(C_{1-3}-alkyl)aminocarbonyl, pyrrolidin-1-yl-carbonyl, piperidin-1-yl-carbonyl or morpholin-4-yl-carbonyl, piperazin-1-yl-carbonyl, 4-methylpiperazin-1-yl-carbonyl or 4-ethylpiperazin-1-yl-carbonyl group and A and n are as hereinbefore defined,

a phenyl-$(CH_2)_m$-D-C_{1-3}-alkyl group wherein the phenyl moiety is substituted by the groups R^{10} to R^{14}, where R^{10} to R^{14} and m are as mentioned hereinbefore and D denotes an oxygen or sulphur atom, –NH–, C_{1-3}-alkylimino, sulphinyl or sulphonyl group,

a naphthyl-$(CH_2)_m$-D-C_{1-3}-alkyl group wherein the naphthyl moiety is substituted by the groups R^{10} to R^{14}, where R^{10} to R^{14}, D and m are as mentioned hereinbefore,

a C_{2-6}-alkyl group substituted by a group R_b, where

R_b is isolated from the cyclic nitrogen atom in the 1 position of the purine skeleton by at least two carbon atoms and

R_b denotes a hydroxy, C_{1-3}-alkyloxy, mercapto, C_{1-3}-alkylsulphanyl, C_{1-3}-alkylsulphinyl, C_{1-3}-alkylsulphonyl, amino, C_{1-3}-alkyl-carbonylamino, C_{3-6}-cycloalkyl-carbonyl-amino, arylcarbonylamino, C_{1-3}-alkylamino, di-(C_{1-3}-alkyl)-amino, pyrrolidin-1-yl, piperidin-1-yl, morpholin-4-yl, piperazin-1-yl or 4-(C_{1-3}-alkyl)-piperazin-1-yl group,

a C_{3-6}-cycloalkyl group,

or an amino or arylcarbonylamino group,

R^2 denotes a hydrogen atom,

a C_{1-8}-alkyl group,

a C_{3-8}-alkenyl group,

a C_{3-4}-alkenyl group which is substituted by a C_{1-2}-alkyloxy-carbonyl, aminocarbonyl, C_{1-3}-alkylamino-carbonyl, di-(C_{1-3}-alkyl)-amino-carbonyl, pyrrolidin-1-ylcarbonyl, piperidin-1-ylcarbonyl or morpholin-4-ylcarbonyl group,

a C_{3-8}-alkynyl group,

a C_{3-6}-cycloalkyl group,

a C_{1-6}-alkyl group substituted by a group R_a, where R_a is as hereinbefore defined,

a phenyl group which is substituted by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a C_{1-6}-alkyl group substituted by a phenyl group, wherein the phenyl ring is substituted by the groups R^{10} to R^{14} and R^{10} to R^{14} are as hereinbefore defined,

a phenyl-C_{1-4}-alkyl group wherein the alkyl moiety is substituted by a cyano, carboxy, C_{1-3}-alkyloxy-carbonyl, aminocarbonyl, C_{1-3}-alkyl-aminocarbonyl, di-(C_{1-3}-alkyl)-aminocarbonyl, pyrrolidin-1-yl-carbonyl, piperidin-1-yl-carbonyl, morpholin-4-yl-carbonyl group and the phenyl moiety is substituted by the groups R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a phenyl-C_{2-3}-alkenyl group wherein the phenyl moiety is substituted by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a heteroaryl group,

a phenyl-$(CH_2)_m$-A or phenyl-$(CH_2)_m$-A-$(CH_2)_n$ group wherein the phenyl moiety is substituted in each case by R^{10} to R^{14}, while A, R^{10} to R^{14}, m and n are as hereinbefore defined,

a phenylcarbonylmethyl group wherein the phenyl moiety is substituted by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined and the methyl moiety is substituted by a C_{1-3}-alkyl group,

a phenyl-$(CH_2)_m$-B or phenyl-$(CH_2)_m$-B-$(CH_2)_n$ group wherein the phenyl moiety is substituted in each case by R^{10} to R^{14}, while B, R^{10} to R^{14}, m and n are as hereinbefore defined,

a naphthyl-C_{1-3}-alkyl group wherein the naphthyl moiety is substituted by the groups R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a naphthyl-$(CH_2)_m$-A or naphthyl-$(CH_2)_m$-A-$(CH_2)_n$ group wherein the naphthyl moiety is substituted in each case by R^{10} to R^{14}, where R^{10} to R^{14}, A, m and n are as hereinbefore defined,

a naphthyl-$(CH_2)_m$-B or naphthyl-$(CH_2)_m$-B-$(CH_2)_n$ group wherein the naphthyl moiety is substituted in each case by R^{10} to R^{14}, where R^{10} to R^{14}, B, m and n are as hereinbefore defined,

a heteroaryl-$(CH_2)_m$-A or heteroaryl-$(CH_2)_m$-A-$(CH_2)_n$ group where A, m and n are as hereinbefore defined,

a heteroaryl-$(CH_2)_m$-B or heteroaryl-$(CH_2)_m$-B-$(CH_2)_n$ group where B, m and n are as hereinbefore defined,

a C_{1-6}-alkyl-A or C_{1-6}-alkyl-A-$(CH_2)_n$ group where A and n are as hereinbefore defined,

a C_{3-7}-cycloalkyl-$(CH_2)_m$-A or C_{3-7}-cycloalkyl-$(CH_2)_m$-A-$(CH_2)_n$ group where A, m and n are as hereinbefore defined,

a C_{3-7}-cycloalkyl-$(CH_2)_m$-B or C_{3-7}-cycloalkyl-$(CH_2)_m$-B-$(CH_2)_n$ group where B, m and n are as hereinbefore defined,

an R^{21}-A-$(CH_2)_n$ group wherein R^{21}, A and n are as hereinbefore defined,

a phenyl-$(CH_2)_m$-D-C_{1-3}-alkyl group wherein the phenyl moiety is substituted by the groups R^{10} to R^{14}, where R^{10} to R^{14}, D and m are as mentioned hereinbefore,

a naphthyl-$(CH_2)_m$-D-C_{1-3}-alkyl group wherein the naphthyl moiety is substituted by the groups R^{10} to R^{14}, where R^{10} to R^{14}, D and m are as mentioned hereinbefore,

a C_{1-6}-alkyl group substituted by a group R_b, where R_b is as hereinbefore defined,

a cyano, carboxy, C_{1-3}-alkyloxy-carbonyl, aminocarbonyl, C_{1-3}-alkylamino-carbonyl, di-(C_{1-3}-alkyl)-amino-carbonyl, pyrrolidin-1-ylcarbonyl, piperidin-1-ylcarbonyl, morpholin-4-ylcarbonyl, piperazin-1-ylcarbonyl, 4-methylpiperazin-1-ylcarbonyl or 4-ethylpiperazin-1-ylcarbonyl group,

an amino, C_{1-6}-alkylamino or di-(C_{1-6}-alkyl)-amino group,

an amino group substituted by the groups R^{15} and R^{16} wherein

R^{15} denotes a hydrogen atom or a C_{1-6}-alkyl group and

R^{16} denotes a C_{1-6}-alkyl group which is substituted by R_a, where R_a is as hereinbefore

defined,

an amino group substituted by the groups R^{15} and R^{17} wherein

R^{15} is as hereinbefore defined and

R^{17} denotes a C_{2-6}-alkyl group which is substituted by a hydroxy, C_{1-3}-alkyloxy, aryloxy, mercapto, C_{1-3}-alkylsulphanyl, C_{1-3}-alkylsulphinyl, C_{1-3}-alkylsulphonyl, C_{1-3}-alkylsulphonylamino, arylsulphanyl, arylsulphinyl, arylsulphonyl, arylsulphonylamino, C_{1-3}-alkyl-carbonylamino, C_{3-6}-cycloalkyl-carbonylamino, arylcarbonylamino, C_{1-3}-alkyloxycarbonylamino, aminocarbonylamino, C_{1-3}-alkyl-aminocarbonylamino, di-(C_{1-3}-alkyl)-aminocarbonylamino, amino, C_{1-3}-alkylamino, di-(C_{1-3}-alkyl)-amino, pyrrolidin-1-yl, piperidin-1-yl, morpholin-4-yl, piperazin-1-yl or 4-(C_{1-3}-alkyl)-piperazin-1-yl group,

a C_{3-6}-cycloalkylamino or N-(C_{3-6}-cycloalkyl)-N-(C_{1-3}-alkyl)-amino group,

a phenylamino or N-(phenyl)-N-(C_{1-3}-alkyl)-amino group wherein the phenyl moiety is substituted in each case by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a phenyl-C_{1-6}-alkylamino or N-(phenyl-C_{1-6}-alkyl)-N-(C_{1-3}-alkyl)-amino group wherein the phenyl moiety is substituted in each case by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a naphthylamino or N-(naphthyl)-N-(C_{1-3}-alkyl)-amino group,

a naphthyl-C_{1-6}-alkylamino or N-(naphthyl-C_{1-6}-alkyl)-N-(C_{1-3}-alkyl)-amino group,

a heteroarylamino or N-(heteroaryl)-N-(C_{1-3}-alkyl)-amino group,

a pyrrolidin-1-yl, piperidin-1-yl, homopiperidin-1-yl, morpholin-4-yl, homomorpholin-4-yl, piperazin-1-yl, 4-(C_{1-3}-alkyl)-piperazin-1-yl, homopiperazin-1-yl or 4-(C_{1-3}-alkyl)-homopiperazin-1-yl group, or

a C_{1-6}-alkyloxy, C_{3-6}-cycloalkyloxy or C_{3-6}-cycloalkyl-C_{1-6}-alkyloxy group,

a C_{1-6}-alkylsulphanyl, C_{3-6}-cycloalkylsulphanyl or C_{3-6}-cycloalkyl-C_{1-6}-alkylsulphanyl group,

a phenyloxy or phenylsulphanyl group wherein the phenyl moiety is substituted in each case by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a phenyl-C_{1-6}-alkyloxy or phenyl-C_{1-6}-alkylsulphanyl group wherein the phenyl moiety is substituted in each case by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a naphthyloxy or a naphthylsulphanyl group wherein the naphthyl moiety is substituted in each case by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a naphthyl-C_{1-6}-alkyloxy or naphthyl-C_{1-6}-alkylsulphanyl group wherein the naphthyl moiety is substituted in each case by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

a heteroaryloxy or heteroarylsulphanyl group or

a heteroaryl-C_{1-6}-alkyloxy or heteroaryl-C_{1-6}-alkylsulphanyl group,

R^3 denotes a C_{1-8}-alkyl group,

a C_{1-4}-alkyl group substituted by the group R_c, where

R_c denotes a C_{3-7}-cycloalkyl group optionally substituted by one or two C_{1-3}-alkyl groups,

a C_{5-7}-cycloalkenyl group optionally substituted by one or two C_{1-3}-alkyl groups,

an aryl group or

a furanyl, thienyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, pyridyl, pyridazinyl, pyrimidyl or pyrazinyl group, while the above-mentioned heterocyclic groups may each be substituted by one or two C_{1-3}-alkyl groups or by a fluorine, chlorine, bromine or iodine atom or by a trifluoromethyl, cyano or C_{1-3}-alkyloxy group,

a C_{3-8}-alkenyl group,

a C_{3-6}-alkenyl group substituted by a fluorine, chlorine or bromine atom or a trifluoromethyl group,

a C_{3-8}-alkynyl group,

an aryl group or

an aryl-C_{2-4}-alkenyl group,

and

R^4 denotes an azetidin-1-yl or pyrrolidin-1-yl group which is substituted in the 3 position by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)-amino group and may additionally be substituted by one or two C_{1-3}-alkyl groups,

a piperidin-1-yl or hexahydroazepin-1-yl group which is substituted in the 3 position or in the 4 position by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)amino group and may additionally be

substituted by one or two C_{1-3}-alkyl groups,

a 3-amino-piperidin-1-yl group wherein the piperidin-1-yl-moiety is additionally substituted by an aminocarbonyl, C_{1-2}-alkyl-aminocarbonyl, di-(C_{1-2}-alkyl)-aminocarbonyl, pyrrolidin-1-yl-carbonyl, (2-cyano-pyrrolidin-1-yl-)carbonyl, thiazolidin-3-yl-carbonyl, (4-cyano-thiazolidin-3-yl)carbonyl, piperidin-1-ylcarbonyl or morpholin-4-ylcarbonyl group,

a 3-amino-piperidin-1-yl group wherein the piperidin-1-yl moiety is additionally substituted in the 4 position or 5 position by a hydroxy or methoxy group,

a 3-amino-piperidin-1-yl group wherein the methylene group is replaced in the 2 position or 6 position by a carbonyl group,

a piperidin-1-yl or hexahydroazepin-1-yl- group substituted in the 3 position by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)-amino group, wherein two hydrogen atoms on the carbon skeleton of the piperidin-1-yl or hexahydroazepin-1-yl group are each replaced by a straight-chain alkylene bridge, this bridge containing 2 to 5 carbon atoms if the two hydrogen atoms are on the same carbon atom, or 1 to 4 carbon atoms if the hydrogen atoms are on adjacent carbon atoms, or 1 to 4 carbon atoms if the hydrogen atoms are on carbon atoms which are separated by one atom, or 1 to 3 carbon atoms if the hydrogen atoms are on carbon atoms which are separated by two atoms,

an azetidin-1-yl, pyrrolidin-1-yl, piperidin-1-yl or hexahydroazepin-1-yl group which is substituted by an amino-C_{1-3}-alkyl, C_{1-3}-alkylamino-C_{1-3}-alkyl or a di-(C_{1-3}-alkyl)amino-C_{1-3}-alkyl group,

a piperazin-1-yl or [1,4]diazepan-1-yl group optionally substituted on the carbon skeleton by one or two C_{1-3}-alkyl groups,

a 3-imino-piperazin-1-yl, 3-imino-[1,4]diazepan-1-yl or 5-imino-[1,4]diazepan-1-yl group optionally substituted on the carbon skeleton by one or two C_{1-3}-alkyl groups,

a [1,4]diazepan-1-yl group optionally substituted by one or two C_{1-3}-alkyl groups, which is substituted in the 6 position by an amino group,

a C_{3-7}-cycloalkyl group which is substituted by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)-amino group,

a C_{3-7}-cycloalkyl group which is substituted by an amino-C_{1-3}-alkyl, C_{1-3}-alkylamino-C_{1-3}-alkyl or a di-(C_{1-3}-alkyl)amino-C_{1-3}-alkyl group,

a C_{3-7}-cycloalkyl-C_{1-2}-alkyl group wherein the cycloalkyl moiety is substituted by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)-amino group,

a C_{3-7}-cycloalkyl-C_{1-2}-alkyl group wherein the cycloalkyl moiety is substituted by an amino-C_{1-3}-alkyl, C_{1-3}-alkylamino-C_{1-3}-alkyl or a di-(C_{1-3}-alkyl)amino-C_{1-3}-alkyl group,

a C_{3-7}-cycloalkylamino group wherein the cycloalkyl moiety is substituted by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)-amino group, while the two nitrogen atoms on the cycloalkyl moiety are separated from one another by at least two carbon atoms,

an N-(C_{3-7}-cycloalkyl)-N-(C_{1-3}-alkyl)-amino group wherein the cycloalkyl moiety is substituted by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)-amino group, while the two nitrogen atoms on the cycloalkyl moiety are separated from one another by at least two carbon atoms,

a C_{3-7}-cycloalkylamino group wherein the cycloalkyl moiety is substituted by an amino-C_{1-3}-alkyl, C_{1-3}-alkylamino-C_{1-3}-alkyl or a di-(C_{1-3}-alkyl)amino-C_{1-3}-alkyl group,

an N-(C_{3-7}-cycloalkyl)-N-(C_{1-3}-alkyl)-amino group wherein the cycloalkyl moiety is substituted by an amino-C_{1-3}-alkyl, C_{1-3}-alkylamino-C_{1-3}-alkyl or a di-(C_{1-3}-alkyl)amino-C_{1-3}-alkyl group,

a C_{3-7}-cycloalkyl-C_{1-2}-alkyl-amino group wherein the cycloalkyl moiety is substituted by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)-amino group,

an N-(C_{3-7}-cycloalkyl-C_{1-2}-alkyl)-N-(C_{1-2}-alkyl)-amino group wherein the cycloalkyl moiety is substituted by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)-amino group,

a C_{3-7}-cycloalkyl-C_{1-2}-alkyl-amino group wherein the cycloalkyl moiety is substituted by an amino-C_{1-3}-alkyl, C_{1-3}-alkylamino-C_{1-3}-alkyl or a di-(C_{1-3}-alkyl)amino-C_{1-3}-alkyl group,

an N-(C_{3-7}-cycloalkyl-C_{1-2}-alkyl)-N-(C_{1-2}-alkyl)-amino group wherein the cycloalkyl moiety is substituted by an amino-C_{1-3}-alkyl, C_{1-3}-alkylamino-C_{1-3}-alkyl or a di-(C_{1-3}-alkyl)amino-C_{1-3}-alkyl group,

an R^{19}-C_{2-4}-alkylamino group wherein R^{19} is separated from the nitrogen atom of the C_{2-4}-alkylamino moiety by at least two carbon atoms and

R^{19} denotes an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)-amino group,

an R^{19}-C_{2-4}-alkylamino group wherein the nitrogen atom of the C_{2-4}-alkylamino moiety is substituted by a C_{1-3}-alkyl group and R^{19} is separated from the nitrogen atom of the C_{2-4}-alkylamino moiety by at least two carbon atoms, where R^{19} is as hereinbefore defined,

an amino group substituted by the group R^{20} wherein

R^{20} denotes an azetidin-3-yl, azetidin-2-ylmethyl, azetidin-3-ylmethyl, pyrrolidin-3-yl, pyrrolidin-2-ylmethyl, pyrrolidin-3-ylmethyl, piperidin-3-yl, piperidin-4-yl, piperidin-2-

ylmethyl, piperidin-3-ylmethyl or piperidin-4-ylmethyl group, while the groups mentioned for R^{20} may each be substituted by one or two C_{1-3}-alkyl groups,

an amino group substituted by the group R^{20} and a C_{1-3}-alkyl group wherein R^{20} is as hereinbefore defined, while the groups mentioned for R^{20} may each be substituted by one or two C_{1-3}-alkyl groups,

an R^{19}-C_{3-4}-alkyl group wherein the C_{3-4}-alkyl moiety is straight-chained and may additionally be substituted by one or two C_{1-3}-alkyl groups, where R^{19} is as hereinbefore defined,

a 3-amino-2-oxo-piperidin-5-yl or 3-amino-2-oxo-1-methyl-piperidin-5-yl group,

a pyrrolidin-3-yl, piperidin-3-yl, piperidin-4-yl, hexahydroazepin-3-yl or hexahydroazepin-4-yl group which is substituted in the 1 position by an amino, C_{1-3}-alkylamino or di-(C_{1-3}-alkyl)amino group,

or an azetidin-2-yl-C_{1-2}-alkyl, azetidin-3-yl-C_{1-2}-alkyl, pyrrolidin-2-yl-C_{1-2}-alkyl, pyrrolidin-3-yl, pyrrolidin-3-yl-C_{1-2}-alkyl, piperidin-2-yl-C_{1-2}-alkyl, piperidin-3-yl, piperidin-3-yl-C_{1-2}-alkyl, piperidin-4-yl or piperidin-4-yl-C_{1-2}-alkyl group, while the above-mentioned groups may each be substituted by one or two C_{1-3}-alkyl groups,

while by the aryl groups mentioned in the definition of the above groups are meant phenyl or naphthyl groups, which may be mono- or disubstituted by R_h independently of one another, where the substituents are identical or different and R_h denotes a fluorine, chlorine, bromine or iodine atom, a trifluoromethyl, cyano, nitro, amino, aminocarbonyl, aminosulphonyl, methylsulphonyl, acetylamino, methylsulphonylamino, C_{1-3}-alkyl, cyclopropyl, ethenyl, ethynyl, hydroxy,
C_{1-3}-alkyloxy, difluoromethoxy or trifluoromethoxy group,

by the heteroaryl groups mentioned in the definitions of the above-mentioned groups are meant a pyrrolyl, furanyl, thienyl, pyridyl, indolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl group,

or a pyrrolyl, furanyl, thienyl or pyridyl group wherein one or two methyne groups are replaced by nitrogen atoms,

or an indolyl, benzofuranyl, benzothiophenyl, quinolinyl or isoquinolinyl group wherein one to three methyne groups are replaced by nitrogen atoms,

or a 1,2-dihydro-2-oxo-pyridinyl, 1,4-dihydro-4-oxo-pyridinyl, 2,3-dihydro-3-oxo-pyridazinyl, 1,2,3,6-tetrahydro-3,6-dioxo-pyridazinyl, 1,2-dihydro-2-oxo-pyrimidinyl, 3,4-dihydro-4-oxo-pyrimidinyl, 1,2,3,4-tetrahydro-2,4-dioxo-pyrimidinyl, 1,2-dihydro-2-oxo-pyrazinyl, 1,2,3,4-tetrahydro-2,3-dioxo-pyrazinyl, 2,3-dihydro-2-oxo-indolyl, 2,3-dihydrobenzofuranyl, 2,3-dihydro-2-oxo-1H-benzimidazolyl, 2,3-dihydro-2-oxo-benzoxazolyl, 1,2-dihydro-2-oxo-quinolinyl, 1,4-dihydro-4-oxo-quinolinyl, 1,2-dihydro-1-oxo-isoquinolinyl, 1,4-dihydro-4-oxo-cinnolinyl, 1,2-dihydro-2-oxo-quinazolinyl, 3,4-dihydro-4-oxo-quinazolinyl, 1,2,3,4-tetrahydro-2,4-dioxo-quinazolinyl, 1,2-dihydro-2-oxoquinoxalinyl, 1,2,3,4-tetrahydro-2,3-dioxo-quinoxalinyl, 1,2-dihydro-1-oxo-phthalazinyl, 1,2,3,4-tetrahydro-1,4-dioxo-phthalazinyl, chromanyl, cumarinyl, 2,3-dihydro-benzo[1,4]dioxinyl or 3,4-dihydro-3-oxo-2H-benzo[1,4]oxazinyl group,

while the above-mentioned heteroaryl groups may be substituted by R^{10} to R^{14}, where R^{10} to R^{14} are as hereinbefore defined,

and, unless otherwise stated, the above-mentioned alkyl, alkenyl and alkynyl groups may be straight-chain or branched,

as well as the derivatives which are N-oxidised at the cyclic nitrogen atom in the 3 position or 9

position of the hypoxanthine skeleton,

as well as the derivatives wherein the 6-oxo group of the hypoxanthine skeleton is replaced by a thioxo group,

with the proviso that the compounds
7-(4-fluorobenzyl)-8-(4-piperidinylamino)-1,7-dihydro-purin-6-one,
7-(4-fluorobenzyl)-8-(1-methyl-4-piperidinylamino)-1,7-dihydro-purin-6-one,
8-(piperidin-4-ylmethyl)-7-(4-fluorobenzyl)-1,7-dihydro-purin-6-one and
8-(1-methyl-piperidin-4-ylmethyl)-7-(4-fluorobenzyl)-1,7-dihydro-purin-6-one
are excluded,

the tautomers, enantiomers, diastereomers, the mixtures thereof, the prodrugs thereof and the salts thereof.

2. (Original) The compound according to claim 1,

wherein R^1, R^2 and R^3 are defined as in claim 1 and

R^4 denotes a pyrrolidin-1-yl group which is substituted in the 3 position by an amino group,

a piperidin-1-yl group which is substituted in the 3 position by an amino group,

a piperidin-3-yl or piperidin-4-yl group,

a hexahydroazepin-1-yl group which is substituted in the 3 position or 4 position by an amino group,

a piperazin-1-yl or [1,4]diazepan-1-yl group,

a (2-aminocyclohexyl)amino group,

a cyclohexyl group which is substituted in the 3 position by an amino group,

or an N-(2-aminoethyl)-methylamino or an N-(2-aminoethyl)-ethylamino group,

the tautomers, enantiomers, diastereomers, the mixtures thereof, the prodrugs and the salts thereof.

3. (Original) The compound according to claim 1, wherein

R^1 denotes a hydrogen atom,

a C_{1-6}-alkyl group,

a C_{3-6}-alkenyl group,

a C_{3-4}-alkynyl group,

a C_{3-6}-cycloalkylmethyl group,

a phenyl-C_{1-3}-alkyl group wherein the phenyl moiety is substituted by R^{10} and R^{11}, where

R^{10} denotes a hydrogen atom, a fluorine, chlorine or bromine atom,

a methyl or trifluoromethyl group,

a cyano, aminocarbonyl, dimethylaminocarbonyl or methylsulphonyl group,

an amino, acetylamino or methylsulphonylamino group,

a hydroxy, methoxy, difluoromethoxy, trifluoromethoxy, carboxymethoxy, methoxycarbonylmethoxy, ethyloxycarbonylmethoxy, aminocarbonylmethoxy, methylaminocarbonylmethoxy, ethylaminocarbonylmethoxy or dimethylaminocarbonylmethoxy group and

R^{11} denotes a hydrogen atom, a fluorine or chlorine atom,

or a methyl or methoxy group,

a naphthylmethyl group wherein the naphthyl moiety is substituted by R^{10} and R^{11}, where R^{10} and R^{11} are as hereinbefore defined,

a heteroarylmethyl group where the term

heteroaryl denotes a furanyl, thienyl, oxazolyl, isoxazolyl, thiazolyl, pyridyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl or quinazolinyl group and the above-mentioned heteroaryl groups are substituted by R^{10} and R^{11}, where R^{10} and R^{11} are as hereinbefore defined,

a phenylcarbonylmethyl group wherein the phenyl moiety is substituted by R^{10} and R^{11}, where R^{10} and R^{11} are as hereinbefore defined,

a furanylcarbonylmethyl, thienylcarbonylmethyl or pyridylcarbonylmethyl group,

or a 2-oxo-propyl or cyclohexylcarbonylmethyl group,

R^2 denotes a hydrogen atom,

a C_{1-6}-alkyl group,

a C_{3-6}-alkenyl group,

a C_{3-4}-alkynyl group,

a C_{3-6}-cycloalkyl or C_{3-6}-cycloalkyl-C_{1-3}-alkyl group,

a phenyl group which is substituted by R^{10} and R^{11}, where R^{10} and R^{11} are as hereinbefore defined,

a phenyl-C_{1-3}-alkyl group wherein the phenyl moiety is substituted by R^{10} and R^{11}, where R^{10} and R^{11} are as hereinbefore defined,

a phenyl-C_{2-3}-alkenyl group wherein the phenyl moiety is substituted by R^{10} and R^{11}, where R^{10} and R^{11} are as hereinbefore defined,

a phenylcarbonylmethyl group wherein the phenyl moiety is substituted by R^{10} and R^{11}, where R^{10} and R^{11} are as hereinbefore defined,

a furanyl, thienyl or pyridyl group,

a furanyl-C_{1-3}-alkyl, thienyl-C_{1-3}-alkyl or pyridyl-C_{1-3}-alkyl group,

a cyano group,

an amino, C_{1-4}-alkylamino or di-(C_{1-4}-alkyl)-amino group,

an amino group substituted by the groups R^{15} and R^{16} wherein

R^{15} denotes a hydrogen atom or a methyl or ethyl group and

R^{16} denotes a C_{1-4}-alkyl group which is substituted by a cyano, carboxy, methoxycarbonyl, ethyloxycarbonyl, aminocarbonyl, methylaminocarbonyl, dimethylaminocarbonyl, ethylaminocarbonyl, diethylaminocarbonyl, pyrrolidin-1-ylcarbonyl or morpholin-4-ylcarbonyl group,

an amino group substituted by the groups R^{15} and R^{17} wherein

R^{15} is as hereinbefore defined and

R^{17} denotes a straight-chain C_{2-4}-alkyl group which is terminally substituted in each case by an amino, methylamino, dimethylamino, acetylamino, ethyloxycarbonylamino, phenylcarbonylamino, methylsulphonylamino, phenylsulphonylamino, hydroxy, methoxy, phenyloxy, methylsulphanyl or phenylsulphanyl group,

a pyrrolidin-1-yl, piperidin-1-yl, morpholin-4-yl, piperazin-1-yl or 4-methyl-piperazin-1-yl group,

a C_{3-6}-cycloalkylamino or C_{3-6}-cycloalkyl-C_{1-3}-alkylamino group,

a phenylamino group,

a phenyl-C_{1-3}-alkylamino group wherein the phenyl moiety is substituted by R^{10} and R^{11}, where R^{10} and R^{11} are as hereinbefore defined,

a naphthylmethylamino group,

a heteroaryl-C_{1-2}-alkylamino group, where the term heteroaryl is as hereinbefore defined, or

a methylsulphanyl, benzylsulphanyl or (2-phenylethyl)sulphanyl group,

R^3 denotes a C_{4-6}-alkenyl group,

a C_{3-4}-alkenyl group which is substituted by a fluorine, chlorine or bromine atom or a trifluoromethyl group,

a 2-butyn-1-yl group or

a methyl group substituted by the group R_c, where

R_c denotes a 1-cyclopenten-1-yl-or 1-cyclohexen-1-yl group,

a phenyl group optionally substituted by a fluorine, chlorine, bromine or iodine atom, by a methyl, trifluoromethyl, cyano, methoxy, difluoromethoxy or trifluoromethoxy group,

a phenyl group which is substituted by two fluorine atoms,

a naphthyl group or

a furanyl, thienyl, or pyridyl group,

and

R^4 denotes a piperidin-1-yl group which is substituted in the 3 position by an amino group,

a hexahydroazepin-1-yl group which is substituted in the 3 position or 4 position by an amino group,

a (2-aminocyclohexyl)amino group,

a cyclohexyl group which is substituted in the 3 position by an amino group, or

an N-(2-aminoethyl)-methylamino or an N-(2-aminoethyl)-ethylamino group,

while unless otherwise stated, the above-mentioned alkyl, alkenyl and alkynyl groups may be straight-chain or branched.

4. (Original) The compound according to claim 3, wherein

R^1 denotes a hydrogen atom,

a methyl, benzyl or 2-phenylethyl group,

a naphthylmethyl or methoxynaphthylmethyl group or

a phenylcarbonylmethyl group,

R^2 denotes a hydrogen atom,

a methyl or 2-phenylethyl group,

a phenylcarbonylmethyl group,

a cyano group,

an amino, methylamino, dimethylamino, isopropylamino, cyclohexylamino- or (cyclohexylmethyl)amino group,

a benzylamino, fluorobenzylamino or (2-phenylethyl)amino group or

a piperidin-1-yl group,

R^3 denotes a benzyl or 3-methyl-but-2-en-1-yl group

and

R^4 denotes a (3-amino-piperidin-1-yl) group.

5. (Original) A compound chosen from:

(1) 8-(3-amino-piperidin-1-yl)-7-benzyl-2-benzylamino-1-methyl-1,7-dihydro-purin-6-one,

(2) 8-(3-amino-piperidin-1-yl)-7-benzyl-2-(4-fluoro-benzylamino)-1-methyl-1,7-dihydro-purin-6-one,

(3) 8-(3-amino-piperidin-1-yl)-7-benzyl-1-methyl-2-[(2-phenylethyl)amino]-1,7-dihydro-purin-6-one,

(4) 8-(3-amino-piperidin-1-yl)-7-benzyl-2-isopropylamino-1-methyl-1,7-dihydro-purin-6-one,

(5) 8-(3-amino-piperidin-1-yl)-7-benzyl-1-methyl-2-methylamino-1,7-dihydro-purin-6-one,

(6) 8-(3-amino-piperidin-1-yl)-7-benzyl-2-cyclohexylamino-1-methyl-1,7-dihydro-purin-6-one,

(7) 8-(3-amino-piperidin-1-yl)-7-benzyl-2-[(cyclohexylmethyl)amino]-1-methyl-1,7-dihydro-purin-6-one,

(8) 8-(3-amino-piperidin-1-yl)-7-benzyl-1-methyl-2-(piperidin-1-yl)-1,7-dihydro-purin-6-one,

(9) 8-(3-amino-piperidin-1-yl)-7-benzyl-2-dimethylamino-1-methyl-1,7-dihydro-purin-6-one,

(10) 2-amino-8-(3-amino-piperidin-1-yl)-7-benzyl-1-methyl-1,7-dihydro-purin-6-one,

(11) 8-(3-amino-piperidin-1-yl)-2-benzylamino-1-methyl-7-(3-methyl-but-2-en-1-yl)-1,7-dihydro-purin-6-one,

(12) 8-(3-amino-piperidin-1-yl)-7-benzyl-1-methyl-2-methyl-1,7-dihydro-purin-6-one,

(13) 8-(3-amino-piperidin-1-yl)-1-methyl-7-(3-methyl-but-2-en-1-yl)-2-(2-phenylethyl)-1,7-dihydro-purin-6-one,

(14) 8-(3-amino-piperidin-1-yl)-7-benzyl-1-methyl-1,7-dihydro-purin-6-one,

(15) 8-(3-amino-piperidin-1-yl)-7-benzyl-1-(2-oxo-2-phenyl-ethyl)-1,7-dihydro-purin-6-one,

(16) 8-(3-amino-piperidin-1-yl)-2-methyl-7-(3-methyl-but-2-en-1-yl)-1-[(naphthalen-1-yl)methyl]-1,7-dihydro-purin-6-one,

(17) 8-(3-amino-piperidin-1-yl)-7-(3-methyl-but-2-en-1-yl)-1-[(naphthalen-1-yl)methyl]-1,7-dihydro-purin-6-one and

(18) 8-(3-amino-piperidin-1-yl)-7-(3-methyl-but-2-en-1-yl)-1-[(4-methoxy-naphthalen-1-yl)methyl]-1,7-dihydro-purin-6-one

as well as the tautomers, enantiomers, diastereomers, the mixtures thereof and the salts thereof.

6. (Currently amended) A physiologically acceptable salt of a compound according to claim 1 with an inorganic or organic ~~acids or bases~~ acid or base.

7. (Original) A pharmaceutical composition comprising a pharmaceutically effective amount of a compound according to claim 1 optionally together with one or more pharmaceutically acceptable inert carriers and/or diluents.

8. (Canceled)

9. (Previously presented) A method of treating type I or type II diabetes mellitus, or obesity, comprising administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 1.

10. (Previously presented) A method of treating or preventing type II diabetes mellitus or obesity, comprising administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 1.

11. (New) A method of treating type I or type II diabetes mellitus, or obesity, comprising administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 1, wherein the administering is of 1 to 100 mg of the compound by intravenous route, or of 1 to 1000 mg by oral route, in each case 1 to 4 times a day.

12. (New) A method of treating type I or type II diabetes mellitus, or obesity, comprising

administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 1, wherein the administering is of 1 to 30 mg of the compound by intravenous route, or of 1 to 100 mg by oral route, in each case 1 to 4 times a day.

13. (New) A compound according to claim 1, the tautomers, enantiomers, diastereomers, the mixtures thereof, the prodrugs thereof and the salts thereof,

excluding compounds wherein:

R^4 is an amino group substituted by R^{20}, where R^{20} denotes piperidin-4-yl optionally substituted by one or two C_{1-3}-alkyl groups; or

R^4 is a piperidin-4-yl-C_1-alkyl group optionally substituted by one or two C_{1-3}-alkyl groups.

14. (New) A method of treating type I or type II diabetes mellitus, or obesity, comprising administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 13.

15. (New) A method of treating type I or type II diabetes mellitus, or obesity, comprising administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 13, wherein the administering is of 1 to 100 mg of the compound by intravenous route, or of 1 to 1000 mg by oral route, in each case 1 to 4 times a day.

16. (New) A pharmaceutical composition comprising a pharmaceutically effective amount of a compound according to claim 13 optionally together with one or more pharmaceutically acceptable inert carriers and/or diluents.

17. (New) A method of treating type I or type II diabetes mellitus, or obesity, comprising administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 2.

18. (New) A method of treating type I or type II diabetes mellitus, or obesity, comprising administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 3.

19. (New) A method of treating type I or type II diabetes mellitus, or obesity, comprising administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 4.

20. (New) A method of treating type I or type II diabetes mellitus, or obesity, comprising administering to a patient in need thereof a pharmaceutically effective amount of a compound according to claim 5.